



citizens' bulletin

Volume 6

Number 3

November 1978

\$2/yr.



Leonard Lee Rue III Wild Turkey Toms

turkeys: introducing a wild bunch

Inside

Growing Giant, 2; Multiplying Turkeys, 3; Web-footed Friends, 5; CAM Views of Coast, 8; 208: Erosion Study, 9; Going to the Dogs, 10; Ski DEP, 12; FYI: Help Revise SIP, 14; Index, 15; A Modest Gift Suggestion, 19; Trailside Botanizing, 20.



Growing Giant

At a ceremony on October 19, Governor Ella Grasso accepted over 100 acres of land to extend Sleeping Giant State Park in Hamden.

Three parcels totalling over 19 acres were donated by the Sleeping Giant Association. A parcel of 82.5 acres was given to the State by Frank S. Butterworth, Jr., of Hamden, in cooperation with the Nature Conservancy.

Joining the Governor for the acceptance ceremony were, from left to right, Richard Wallace, Acting Director of DEP's Open Space Acquisition Unit; Norman Greist, President of the Sleeping Giant Association; Evan Griswold, Executive Director of the Connecticut Chapter of the Nature Conservancy; and Stanley J. Pac, Commissioner of Environmental Protection.

1973~78 Index (From p. 18)

Tidal wetlands	Oct 74 p 16-18
Tidal wetlands-Brecciaroli	Jan 74 p 2-3
Tidal wetlands-Rykar	Jan 74 p 1-2
Water Resources Unit strengthened	Jan 78 p 3
What you should know about 404	Dec 77 p 3
WILD FLOWERS	
Your April environment	Apr 77 p 11-12
WILD GERANIUM	
Trailside Botanizing	Je 78 p 16
WILD TURKEYS	
Call us if you see one	Feb 76 p 11
WILDLIFE CONSERVATION	
Create a backyard habitat	Mar 76 p 7-9
WILLIMANTIC RIVER	
The Willimantic River study	Nov 75 p 5+
WITCH-HAZEL	
Trailside Botanizing	Oct 77 p 16
WOOD AS FUEL	
Cordwood program discontinued	Jan 76 p 13
Wood-the renewable fuel	Dec 74 p 6-7
WOOD-DUCK	
The swamp	Je 76 p 10-11
Wood-duck nesting box program	Mar 76 p 6

YOUTH CONSERVATION CORPS

YCC applications available	Sept 74 p 20-21
YCC applications due	Mar 78 p 8
	Feb 76 p 6+

ZONING

Cluster zoning	Mar 75 p 11
Conservation, cluster, or open space zoning	Dec 77 p 10

Our thanks to Ruth Surgenor, DEP Information and Education Unit librarian, for updating the five-year index to the Citizens' Bulletin. Thanks also to Susan Amato for preparing the index for publication.

DEP Citizens' Bulletin

Published eleven times a year by the Department of Environmental Protection. Yearly subscription \$2.00. 2nd class postage paid at Hartford, Connecticut. Funds are also provided through a federal grant from the Office of Coastal Zone Management under the Coastal Zone Management Act of 1972. Please forward any address change immediately.

Bulletin material may be reprinted without permission provided credit is given, unless otherwise noted. Address all communications to the Editor, DEP Citizens' Bulletin, Department of Environmental Protection, Room 112, State Office Building, Hartford, Connecticut 06115.

Transplanted Turkeys Settle In Successfully

"Live trapping and relocating turkeys is the only method for establishing a true wild turkey population," says Steve Jackson, the DEP Wildlife Biologist who manages Connecticut's wild turkey restoration program, a project whose success is proving his point.

"Birds which are game-farm raised -- as well as domestic or interbred turkeys -- don't do the things a wild turkey is expected to do, the things that it needs to do to survive in the wild. With gallinaceous birds like turkeys -- as well as their ground-nesting relatives like chickens and pheasants and grouse -- it's important that they get parental training in how to take care of themselves."

"Hatching in an incubator and being raised without a mother hen to imprint and teach them," Jackson says, "leaves these birds to adjust differently." The result is birds which are likely to become tame and vulnerable. "They're likely to take the easy way out, like finding their food at bird feeders and on farm manure piles."



1975: Steve Jackson and DEP Wildlife Unit Chief Dennis DeCarli launch one of original 22 turkeys relocated from New York State.



Steve Jackson

Tom is one of flock that now numbers about seven hundred. Note "beard" on breast.

"By contrast, well mothered wild turkeys," Jackson says, "are instinctively well designed for survival in the wild." They're alert and elusive: "Even if there's a group of twenty-five or thirty turkeys, you're lucky to run onto them. They'll be aware of you before you even see them."

In the face of human disturbance or other disruption, Jackson says, wild turkeys may leave an area: "Sometimes they just take off and go." After just one miss with a net at one trap last year, the turkeys never returned to that area, he says.

Good training is important, but it's not the only thing going for a wild turkey. "They're fast runners -- capable of bursts of up to 25 miles per hour -- and capable of strong flight -- reaching up to 35 miles per hour."

A favorite flight plan of an alarmed wild turkey, Jackson says, is running up a mountain, away from its pursuer, and then flying back down, leaving the pursuer behind.

Though sleeker than their domesticated cousins, wild turkey hens weight seven to twelve pounds, Jackson says, while toms reach about ten pounds at one year old and may grow to as big as about twenty-five



Don't shoot: wild turkeys are protected.

pounds. But for big birds, turkeys are particularly agile.

Live trapping is done with a 45 by 40 foot net, shot over a baited site with three rockets. In the second it takes the net to land, Jackson says, at least half the turkeys usually get away. "Where an eight-pound Canada goose has to take a running start to get airborne," he says, "a turkey can just spring into the air."

Connecticut's turkey restoration project began in February and March of 1975 when 22 wild turkeys were trapped in New York State. Seventeen were trucked and five were air freighted in for release in a remote area of Northwestern Connecticut.

These original twenty-two -- seventeen hens and five toms -- have been the only real stocking, Jackson said. "They took right to the area, and I don't think we lost a bird that first season."

That same spring, as he puts it, "The toms began to gobble as usual and the hens to sit." With at least three broods, their numbers increased to an estimated 40 turkeys.



Steve Jackson

The 1976 breeding season brought the flock up to 100 birds and the 1977 season to 350. This year's count -- a conservative estimate, Jackson says -- has northwestern Connecticut's flock up to about 700 birds. There have been sightings of over 300 young birds this year, he adds.

The birds have gradually dispersed through the area, though they are still denser near the original release site. One bird from the original release was sighted as far away as the Massachusetts border.

This program is a massive success compared to previous attempts to reestablish turkeys in Connecticut using game-farm stock. Back in the early 1950's about 500 pen-raised wild turkeys were released. A few of their descendants are still around, but over twenty-five years the flock has never increased to any significant level. The total number, Jackson says, seems to fluctuate between thirty and one hundred birds. Their survival, he thinks, is at least partially due to generous feeding by some area residents. And if and when a turkey hunting season is established, he thinks, "these domesticated birds would be some of the first to go."

Seven hundred wild turkeys a credit to good parenting!

The Connecticut project is now working on the transfer of some turkeys from northwestern Connecticut to the northeast and south central parts of the State. The nine which were moved last year didn't do too well, Jackson said, because they were transferred just before last winter's severe snows. So far this fall, he says, he's had no success in trapping any turkeys for transfer.

Connecticut's original natural turkey flocks disappeared, as did those of the whole northeast region, in the early 1800's as a result of the clearing of hardwood forests for farmlands and charcoal production.

Today about half of the State, mainly in the northwest and northeast corners and a portion of south central Connecticut, is good potential wild turkey range.

Turkeys do well, Jackson says, on a mixture of dairy farm or old, reverting farm fields and hardwood forests. Their eating habits vary by the season. They like white oak acorns in the fall. In summer, the open fields provide the high-protein insect diet needed especially by growing poults. Winter and particularly late winter is the most critical period, Jackson says, and Japanese barberry seems to provide the key food

Nature Notes

by Penni Sharp

Waterfowl Watch

By late fall, many species of birds that breed and summer in Connecticut have left the area for their southern wintering grounds. While these birds, which include many familiar songbirds, are gone until next spring, there are numbers of birds which appear in Connecticut only during fall and winter months. Among these fall and winter visitors are many species of waterfowl.

Waterfowl belong to the order of birds *Anseriformes* which includes ducks, geese, and swans. Members of this order typically are long-necked, short-legged, swimming birds. Special features common to all waterfowl include a well developed oil gland at the base of the tail, webbed feet, and excellent flying ability. Ducks, geese and swans use the oil secreted by the uropygial gland to preen and coat their feathers with the oil which "waterproofs" the feathers. Their webbed feet are a useful adaptation enabling them to be efficient swimmers, while their flying ability is important as many waterfowl migrate long distances between breeding and wintering grounds.

All of these birds lay unmarked eggs, and the young, when hatched, are covered with down and are "precocial," meaning that they are able to leave the nest almost immediately after hatching.

While some species of waterfowl, mallard, black duck, and Canada goose, breed in the state, the majority breed at higher latitudes. In migration, waterfowl populations tend to follow flyways-- in North America, the four flyways are the Pacific, the Central or plains, the Mississippi, and the Atlantic. Connecticut lies in the swath of the Atlantic flyway which means that many species that breed in Canadian provinces will pass through on their way south or perhaps stay the winter off the Connecticut coast.

Geese

The goose most commonly seen in Connecticut is the Canada goose (*Branta canadensis*). This is the handsome grey bird with the long black neck and a black head with white cheeks. The Canada goose flies in V-shaped flocks. Canada geese are monogamous and are believed to mate for life. These geese are grazers and feed on land, occasionally damaging cultivated crops. Canada geese are permanent residents in Connecticut and can be seen throughout the year.

Less common is the Canada's close relative, the brant (*Branta bernicla*). It is somewhat smaller in size than the Canada goose and lacks the white cheek patches on its black head. It does have an inconspicuous white mark on the side of the neck.



Leonard Lee Rue III

Brant travel in irregular, shifting bunches unlike the V-shaped flocks of Canada geese. The brant nests in the Arctic and winters along both the Pacific and Atlantic coasts.

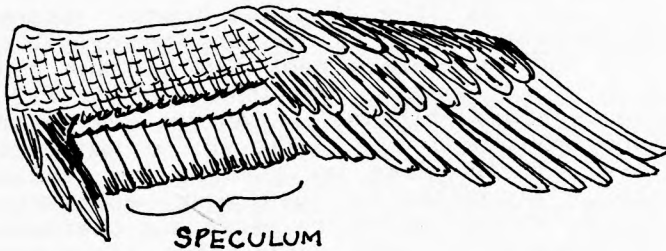
Brant numbers declined precipitously during the 1930's when an infestation of mycetozoans (*Labrinthula*) nearly eradicated the brant's principal food, eelgrass (*Zostera marina*). Although brant shifted their diets to other sources such as sea lettuce (*Ulva* sp.), their numbers were reduced by nearly eighty percent. The brant population gradually built back up, until hurricanes followed by a particularly severe winter two years ago in the brant's New Jersey wintering grounds again reduced their food supply and their numbers. The population now appears to be on the increase again.

Surface Feeding Ducks

Members of this group of ducks are seen primarily in ponds, creeks, and marshes. When feeding they tip up (bottoms up), or "dabble," but do not dive. Surface feeding



ducks or "dabbling ducks," as they are sometimes called, are mainly vegetarians, although they feed on some insects, mollusks



and small fish. Most ducks of this group have a brightly colored, iridescent speculum, a rectangular patch on the wing. The color of the speculum is a good aid in the identification of these ducks.

The most common of the dabbling ducks is the mallard (*Anas platyrhynchos*). The male can be recognized by the green head, narrow white ring around the neck, rust-colored breast, and blue speculum edged with white. As is true for many birds, the female is inconspicuously-colored: her brown plumage with blue speculum, also edged with white, contrasts with the male's crisp colors. As the female incubates the eggs and tends the young, her comparatively dull plumage serves a useful purpose in providing her with a degree of protection from potential predators.

The mallard is an adaptable duck and has not suffered losses as have some other duck species. They feed on aquatic plants and invertebrates and will readily eat crop grains. This species occurs throughout the northern hemisphere, and mallards are permanent residents in Connecticut.

Although more commonly associated with the Pacific flyway, the pintail (*Anas acuta*) can be seen in Connecticut during fall and

winter. The male pintail can be distinguished by a brown head and white neck with a streak of white extending up the side of the head, and, as expected from its name, long, sharp tail plumes. The speculum is metallic brown with a white rear border. The female is mottled brown, similar to the female mallard, but has the pointed tail. It feeds chiefly on the seeds of aquatic plants, however, in winter the pintail will take small aquatic animals. Pintails prefer freshwater habitats, but when these freeze over they will move to salt marshes or mudflats and feed on small crabs and snails. In California, pintails feed readily on rice crops, sometimes causing problems to farmers.

The pintail, because of its fast flight and tasty meat, is an important gamebird.

A dabbling duck with an interesting adaptive feature is the northern shoveler (*Anas clypeata*). The male is distinguished by a green head and white body with chestnut sides. Both male and female have a spatulate bill which is used to stir up and strain the small aquatic animals and plants upon which they feed. Shovelers are often found on stagnant ponds. This habit can sometimes prove fatal as stagnant ponds may harbor bacteria which cause botulism, a food poisoning.



Shoveler
Leonard Lee Rue III

Diving Ducks

Diving ducks, as their name implies, submerge to retrieve their food. They are ducks of more open bodies of water. When taking flight, diving ducks do not spring directly from the water as do surface feeding ducks, but patter along the surface prior to take-off.

A common winter visitor to Connecticut coastal waters is the greater scaup (*Aythya marila*). As numbers build up, these ducks congregate in large offshore groups known as "rafts." Greater scaup and their close relatives, lesser scaup (*A. attinis*), are easily recognized, being the only ducks that are black on both ends and white in the middle.



Pintail
Leonard Lee Rue III

While scaups utilize large inland lakes, they are more frequently seen on Long Island Sound. They dive for small aquatic animals which constitute the main source of their food.

Another diving duck commonly seen off the Connecticut shore in winter is the bufflehead (*Bucephala albeola*). A small, but plump duck, the male bufflehead appears mostly white with a black back and a large head marked with a prominent white patch. The females are mostly dark with a small white cheek patch and white wing patch.

Buffleheads, or "butterballs" as they're named by hunters, breed in the northern coniferous forest zone and nest in tree cavities. In fall, they leave the northern realms and flock along the coast during winter. Buffleheads appear quite playful on the water as they swim and dive and are enjoyable birds to observe.

A group of ducks that are superbly adapted for fishing are the mergansers. They are fast, efficient swimmers and have a thin serrated bill which enables them to hold on to slippery fish. Of the mergansers, two are fairly common in our area -- the American merganser (*Mergus merganser*) and the red-breasted merganser (*Mergus serrator*). The male American has a dark green head, white sides, and a red bill

while the red-breasted has a dark green head, grey sides, a rusty breast, and red bill.



Merganser
Leonard Lee Rue III

The red-breasted merganser is a ground nester, while the American merganser will nest either on the ground or in tree cavities. Mergansers breed along wooded rivers and lakes in the northern U.S. to the Arctic. They are commonly seen in Connecticut during winter and can be separated by habitat as well as field marks. In general, the American merganser is a freshwater species preferring lakes and rivers, whereas the red-breasted merganser is more characteristically found in coastal waters.

A rafter of turkeys (From p. 4)

supply in some areas at this time. In spring, the adaptable turkey may vary his diet by catching tadpoles and crayfish.

Turkey restoration is a program carried out in consultation with the Wild Turkey Committee of the Northeast Section of the Wildlife Society. With the committee's help, the wild turkey is being redistributed through its former range across the Eastern half of the country -- including Connecticut, New York, Vermont, New Jersey, New Hampshire, and Maine. Rhode Island is now expressing an interest in restoring turkeys. A few have even been transplanted to West Germany.

"A hunting season may be something we will want to consider in the near future if the population continues to grow as it has. We'll keep an eye on the saturation level by watching the production of chicks. This year's broods averaged 5.9 poults per hen, which is a rate consistent with those in other states. We want to keep production high, and a hunting season will serve to keep this average at a high level."

"You look at the turkeys from the standpoint of what's healthiest for the flock." And that, eventually, Jackson says,

will be some hunting. "It's good to push them around a little bit. It gets them to disperse more. And keeping their fear high is to their advantage -- it keeps turkeys from standing around at the edges of roads."

Initially, Jackson says, turkey hunting would be limited. And it would be limited to toms. Later it might be expanded. Established turkey flocks, he says, are obviously able to compensate for the losses they take from hunting -- in states that have turkey seasons, twenty-five percent of the total population is taken every year without reducing the breeding stock.

* Don't feed wild turkeys.

* Don't shoot wild turkeys. At present they're fully protected under Connecticut law!

* Don't release domestic turkeys -- interbreeding tends to "dilute the wildness of the wild birds."

* Report turkey sightings -- the more information available, the better. If you regularly sight turkeys, request a set of stamped postcards from Jackson at Department of Environmental Protection Region I Headquarters, P.O. Box 161, Pleasant Valley, CT 06063. Phone: 379-0771.

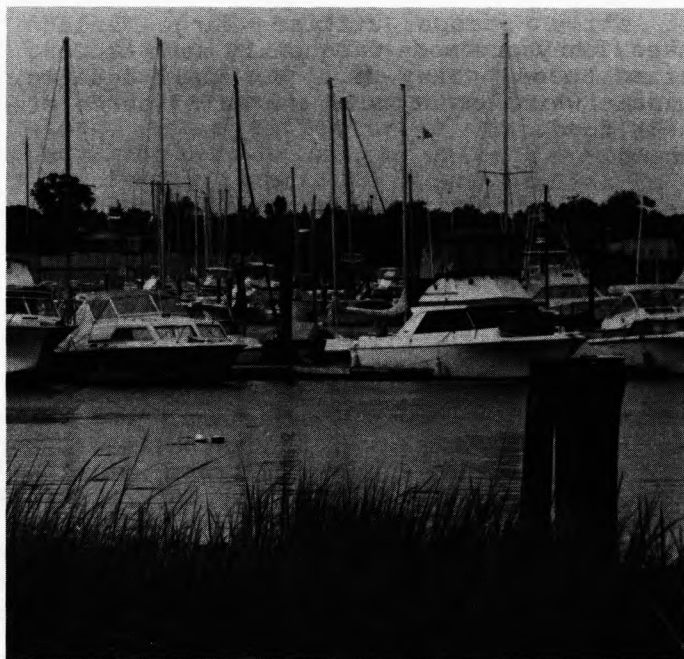


71 capitol avenue hartford, conn. 06115

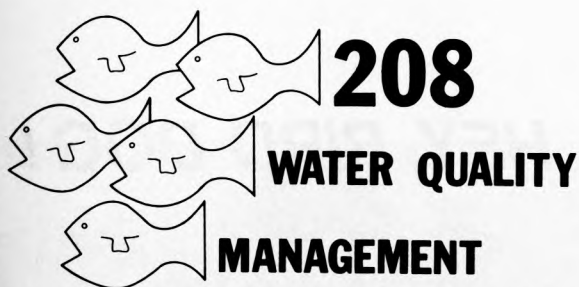
CAM NEWS

Few people will deny the value of the coast. What is particularly significant about Connecticut's coast is its wide diversity. It provides recreation, living space, food, sport, scenic beauty, sites for industry and commercial development, energy development and marine commerce, breeding grounds for fish, and sites for waste disposal. All types of activities and land uses converge and conflict on the coast.

The goal of Coastal Area Management is the "coordination" of the many uses of Connecticut's shoreline. CAM recognizes the need to balance land uses and to provide coordinated and effective management of existing resources at all levels of government. Increased demands and accelerated pressures on the coast have all compounded to make immediate and comprehensive management of impending importance.



VIEWS OF THE COAST



208

WATER QUALITY MANAGEMENT

209 COURT ST., MIDDLETOWN, CT. 06457 347-3700
By Joseph M. Rinaldi, 208 Public Participation Assistant

Erosion Inventory Start Of Sedimentation Studies

A major project of the 208 Program in Connecticut has been the assessment of erosion and sedimentation and its impact on water quality. Erosion is a natural process which can be greatly accelerated by man's activities. Sediment from cultivated cropland, construction sites, roadbanks, streambanks, dirt and gravel roads, and surface mines (generally sand and gravel excavations) is now recognized as a serious problem. Sediment can fill stream channels and lakes. It can degrade water quality because of its ability to transport pollutants such as phosphorus, nitrates, pesticides and herbicides.

In a first step effort to determine the magnitude of erosion and sedimentation problems in the State, the Connecticut 208 Program contracted with the Connecticut Council on Soil and Water Conservation and the eight Soil and Water Conservation Districts to conduct the Erosion and Sedimentation Source Inventory.

The inventory was intended to locate, describe, and quantify the major erosion sites in Connecticut. Through the use of the universal soil loss equation, estimations of the average annual soil loss for each site were obtained. However, these do not predict the movement of soil off-site, the amount of sediment reaching streams and lakes, or the sediment's impact on water quality. In some instances, eroded soil is merely deposited a few feet from the erosion site and never affects nearby water bodies.

During 1979, the effects of non-point sources of water pollution, including erosion and sedimentation, will be calculated. Each of the 20 square mile drainage basins defined in the initial 208 study will be examined. These include both urban and rural watersheds. The assessment will utilize desk-top techniques, but both wet and dry weather observations will be made to verify calculations.

The types of erosion sites inventoried were as follows:

CROPLANDS: All cultivated cropland five acres or more was inventoried. This included such crops as corn, tobacco, vegetables, and nursery stock. All other agricultural lands such as hay fields, pasture lands, and cropland lying fallow were excluded.

Of the 56,116 acres of cultivated croplands inventoried, 57 percent (31,986 acres) were determined to be in need of conservation practices. Estimated annual soil loss on these averaged 9.7 tons per acre, or 310,264 tons. The other 43 percent (24,130 acres) receive adequate conservation practices, and as a result the estimated annual soil loss averaged only 1.7 tons per acre, or 41,021 tons.

CONSTRUCTION SITES: All construction sites which involved earth disturbing activities of two or more acres were inventoried. A total of 511 sites covering 2,579 acres exhibited an estimated annual soil loss of 70 tons per acre, or 180,530 tons.

SURFACE MINING: All surface mining operations of two or more acres in size were mapped, but only those producing off-site sedimentation were included in the inventory. 180 sites involving 1,655 acres were inventoried. Estimated annual soil loss is 77 tons per acre, or 127,435 tons.

ROADBANK EROSION: All sections of roadbank fifty feet or more in length with a slope of at least ten feet and with less than fifty percent cover were inventoried. The inventory found 46.9 miles in need of critical area treatment which are eroding at an estimated average rate of 510 tons per mile. These sites are yielding an estimated total soil loss of 23,919 tons annually.

STREAMBANKS: 2,316 miles of streambank traversing the open land of the state were inventoried. The estimated average annual soil loss was 9.6 tons per bank mile, for a total of 22,234 tons.

GRAVEL ROADS: The inventory covered 746 miles of gravel roads and unpaved driveways. The average annual soil loss for these sites was estimated to be 20 tons per mile. These two categories total approximately 14,920 tons of soil eroded annually.

Total estimated annual soil loss for the six categories inventoried equals 720,323 tons. However, it must be understood that only part of this eroded soil ever reaches the lakes and streams of the state.

See p. 13.



On her mark: One of 36 contenders in the Forty-Third Annual New England Futurity dog trials. The field of sixteen pointers, one Irish and nineteen English setters competed for a total of \$1,000 in prize money, \$600 of which went to owners of the top four dogs and \$400 of which went to the breeders. Dams of these dogs were nominated for this competition, sponsored by the Association of New England Field Trial Clubs, over two years ago.



Student interns: These leashed "trainees" accompanied one of the two-dog, half-hour competitions to "take notes." The sixteen- to twenty-two-month old competitors in this event have had an average of 800 to 1,000 hours of training, according to Truman Cowles, New England Futurity Chairman.

HEY, BIRD DOG!

You don't have to be a hunter or a dog-trainer to enjoy field dog trials--though a horse helps at those trials where the dogs are handled from horseback. Though the fine points vary with, for example, the kinds of dogs and the kinds of game, this way of "going to the doggies" can be fun for just about anybody who wants to watch some well trained athletes.

The object of field trials is an evaluation of dogs' hunting abilities. Dogs are scored on criteria such as their running styles, speed, ability to find game, pointing ability, obedience, and overall "class" in all categories.



Psyching up: Some of the New England Futurity's contenders. The dogs -- along with handlers, horses, friends, and relatives -- came from all over the East Coast for this event at the Dr. John E. Flaherty Field Trial Area in East Windsor. First place went to a pointer female, Carolina Holly, owned and handled by Thelmar Page of Lake City, South Carolina. Second place was taken by Pork Roll, a pointer male owned and handled by Dr. Alvin Nitchman of Cranberry, N.J. A pointer male, Dynastic, owned by John Diesseroth of Canajoharie, N.Y., and handled by Thelmar Page, took third place. An English setter male, Olden Times, owned by Dr. Lindsay K. Bishop of Nashville, Tenn., and handled by Bruce Jacobs, took fourth place.



Steve Daigle of Vernon prepares to put one "bird in the bush" at the October 21-22 New England Futurity. Each year DEP cooperates with, on an average, about 35 sportsmen's clubs and programs such as this one by providing game birds and picking up half the cost of up to 100 birds, according to Peter Bogue, DEP Supervisor of Wildlife Propagation.

Roughly 90 to 100 field trial permits are issued each year. These trials fall into two major categories. In the first of these competitions or training activities, game birds are liberated to be found and flushed by the dogs but not shot. In the second, the hunters are allowed to shoot the released birds. Pheasants are by far the most popular gamebird involved.

DEP HELPS PUT

"A BIRD IN THE BUSH"

Within the non-shooting category only, recognized clubs and organizations are eligible to have DEP provide and partially pay for game birds -- ring-necked pheasants or bobwhite quail. These cooperative field trials must be held on land which is State owned, State leased, or under State permit agreement -- and where the birds are available for hunting.

Trials in which DEP does not supply or pay for the birds must use approved game on approved areas but the trial does not have to be held on the previously mentioned types of lands.

The more popular form of dog trials is the shooting trial where the game is actually taken. Such trials may be informal training trials involving two to six persons -- a variation of the sport that seems to have grown less popular in recent years. Recognized or competitive trials -- such as the New England Futurity -- include predetermined courses and supervision by judges and the awarding of prizes. Qualification for these trials is strict, and few dogs can qualify. All of which leaves group-organized field dog pheasant trials easily the most popular form of the sport.

Certificate Awarded DEP SEE Staffer

At a White House ceremony on October 18, John P. Waters, 73, of the Information and Education Section of the Connecticut DEP was awarded a Certificate of Appreciation for his contribution to the success of the first year of the federally sponsored Senior Environmental Employment (SEE) Program. This program, being tested in ten states, helps the states by funding part-time employment of people 55 and over to work in the states' environmental departments. Connecticut has nineteen SEE workers.

The certificate, signed by Administrator Douglas M. Costle of the U.S. En-

vironmental Protection Agency and by Commissioner Robert Benedict of the U.S. Commission on Aging, was presented to Mr. Waters by EPA Deputy Administrator Barbara Blum. Similar certificates were also awarded to one SEE Program participant from each of the other nine states. Nelson Cruikshank, the President's Advisor on Aging, and Dr. Marvin Taves of the Administration on Aging addressed the group, attributing the good results to the dedication and ability of the approximately 200 SEE Program participants in the 10 test states.

Waters is the author of the series of articles on Connecticut state parks and forests which made up the June 1978 Citizens' Bulletin as well as of this issue's guide to cross-country skiing in state parks and forests.

**FEEL
FREE
TO SKI**

CROSS-COUNTRY

**ON
DEP
LANDS**

"No permits or licenses are necessary for cross-country skiing on the lands, trails, or Blue Trails in Connecticut's state parks and forests," says Parks and Recreation Chief William F. Miller. "All the State asks is that skiers avoid needless risks by making themselves familiar with the terrain of the areas they select for skiing so that they will know whether there are cliffs, gullies, or other hazards to be avoided."

Mr. Miller strongly urges cross-country skiers to carry a map for this reason, especially when skiing in forests. (How to obtain maps of cross-country ski areas is explained below.) He also reminds skiers to be aware that hunters may be in some areas during part of the skiing season, and that there are authorized snowmobile trails in some of the forests.

Safety Hints

It is always advisable to ski with a group, so that help is at hand if needed; and it is also wise to take along a sweater or windbreaker in case the weather changes. Refrain from skiing across ponds, brooks, or other bodies of water because the condition of the ice is unpredictable. If you are a beginner, practice on reasonably level surfaces until you become skillful. In the State parks and forests listed in the box, there are trails of varying degrees of difficulty for beginners and experts.

Maps

Free maps of some of these sites are available from: Parks & Recreation, Room 267, 165 Capitol Avenue, Hartford, Conn.

06115 (566-2304). Indicate the site you prefer. If a map of it is available, it will be given or sent to you.

Topographic Maps

U.S. Geological Survey 24" x 30" topographic maps in color for all sites listed may be obtained for \$1.34 (tax included and postpaid) from: Information & Education, Room 110, 165 Capitol Avenue, Hartford, Conn. 06115 (566-8108). The area detailed on each map is about 7 by 9 miles, and each map is identified by a geographical name, as shown in the third column of the list. Some trails run through more than one map area. For example, the State Bridle Trail requires three maps. When ordering, furnish the name of the park or forest plus the name or names of the maps you want. Make checks payable to Dept. of Environmental Protection.

Other Maps

Highly recommended as a source of trail maps is "The Connecticut Walk Book," published by the Connecticut Forest and Park Association, 1010 Main Street, East Hartford, Conn. 06108. The price is \$5.89 (tax included). Add 53 cents for mail orders. This pocket-sized manual contains maps of dozens of color-blazed trails in State and private forests, with mileage indicated. Although primarily for hikers, it can be extremely helpful to cross-country skiers.

Snow Conditions

For information on snow conditions, plowing, and accessibility, contact one of the following Regional Headquarters of the Department of Environmental Protection between 8:30 a.m. and 4:30 p.m., Monday through Friday. Region I, P.O. Box 161, Pleasant Valley 06063: phone 379-0771. Region II, Judd Hill Road, Middlebury 06762: phone 758-1753. Region III, RR-2, Box 150A, East Hampton 06424: phone 295-9523. Region IV, State Forest Nursery, RFD 1, Voluntown 06384: phone 376-2513.

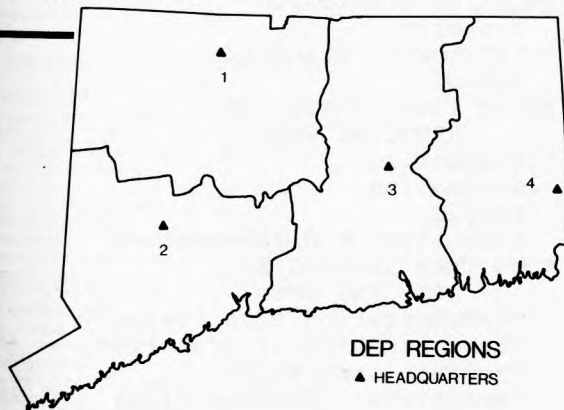
From Christmas through March, radio stations WRCH and WRCQ will broadcast cross-country ski reports on Thursdays, Fridays, and Saturdays at 7:45 a.m. and 4:45 p.m.

Skiing Information

Additional information on equipment and on lessons, open areas, organized tours, and organizations is provided by the Eastern Ski Association, 22 High Street, Brattleboro, Vt. 05301 (802-254-6077). American Youth Hostels, 1007 Farmington Avenue, Hartford, Conn. 06107, also is helpful.

EASY TO SKI CROSS-COUNTRY LOCATIONS

<u>REGION I</u>	<u>TRAIL LOCATION</u>	<u>TOPOGRAPHIC MAP NAME</u>	<u>DESCRIPTION</u>
John A. Minetto State Park	Torrington	Norfolk & W. Torrington	Meadows & trails
Sunnybrook State Park	Torrington	Torrington	Rolling meadows
Penwood State Park	Bloomfield	Avon	Roads & wooded trails
Tunxis State Forest	Hartland	W. Granville & New Hartford	Unplowed forest roads
<u>REGION II</u>			
Collis P. Huntington State Park	Bethel	Botsford	Wooded trails
Southford Falls State Park	Southbury	Southbury	Wooded & open trails
Osbornedale State Park	Derby	Ansonia	Trails & meadows
Seth Low Pierrepont State Park	Ridgefield	Peach Lake & Bethel	Trails
State Bridle Trail	Waterbury, Oxford, Southbury	Waterbury, Southbury, & Naugatuck	Wooded & open trails in 5 towns
<u>REGION III</u>			
Gay City State Park	Hebron	Marlborough	Wooded trails
Wadsworth Falls State Park	Middlefield	Middletown	Wooded & open trails
Meshomasic State Forest	Portland	Middle Haddam, Glastonbury, Marlborough	Shenipsit Blue Trail
Nathan Hale State Forest	Coventry	S. Coventry	Marked horse trails
Rocky Neck State Park	East Lyme	Niantic	Meadows
Hammonasset Beach State Park	Madison	Clinton	Meadows
Mansfield Hollow State Park	Mansfield	Spring Hill	Wooded trails
<u>REGION IV</u>			
Mashamoquet Brook State Park (Wolf Den area)	Pomfret	Hampton & Danielson	Trails & meadows
Natchaug State Forest	Eastford	Eastford & Hampton	Forest roads & trails
Nipmuck State Forest	Union	Wales & Westford	Forest roads & trails
Pachaug State Forest	Voluntown	Jewett City, Voluntown, Plainfield, Oneco	Forest roads & trails
Bluff Point State Park	Groton	New London	Trails



208: Erosion (From p.9)

During the upcoming work year, the 208 Program will be conducting a non-point source assessment for selected watersheds throughout Connecticut. This will enable water quality planners to begin to measure the pollution impact of sediment on the surface waters of the State. Once the impact of sediment is understood, controls can be developed to reduce soil erosion and thereby decrease the resulting water pollution.

For Your Information



By Ellen Frye,
Citizen Participation Coordinator

What is SIP Revision? Why Participate?

If quality of life and lifestyle is important to you, then SIP is too! SIP is the State Implementation Plan describing how a State will attain federal clean air standards. The original Connecticut SIP, mandated in the 1970 Clean Air Act, was approved by the Federal Environmental Protection Agency (EPA) in May 1972. It concentrated primarily on stationary source, such as industrial smoke stack, cleanup with a target date of 1975.

In Connecticut, as elsewhere, the original strategies proved to be inadequate for meeting National Ambient Air Quality Standards (NAAQS). As the "state of the art" in air pollution measurement and control has advanced, causes and effects and control strategies have become better understood. In Connecticut, we have found that industry is not the only culprit. Combustion engines and associated transportation activities have been identified as significant contributors.

In 1973, Connecticut was told by EPA that the transportation control section of its SIP was inadequate for meeting NAAQS. DEP was ordered to develop a transportation control plan (TCP).

Meanwhile, Congress became aware that the original Clean Air Act needed serious rethinking, and in 1977 the Clean Air Amendments were passed. These amendments are essentially a new Clean Air Act. They mandate that the states drastically revise their SIPs, improving cleanup strategies and using all Reasonably Available Control Technologies (RACTs), targeting a new NAAQS attainment date of 1982. Hence, our current SIP revision effort.

What does this all have to do with quality of life and lifestyles? Dirty air does not improve the quality of life. Not only is health affected (joggers, beware of bad air!), but buildings and other things deteriorate more rapidly and require more maintenance.

We all contribute to the problem. And cleaning up the air is going to require participation from everybody.

The acronyms may be mind boggling -- you've met NAAQS, RACT, and TCP, but how about PSD (prevention of significant deterioration), VMT (vehicle miles traveled), I&M (inspection and maintenance), VOCs (volatile organic compounds), or TSPs (total suspended particulates)? -- but many of them refer to strategies which may be part of our air quality improvements.

The recently passed I&M bill will require routine inspection and maintenance of automobiles to improve their efficiency and thereby their tailpipe emission quality. Long and short term strategies to reduce VMTs mean "think twice about doing everything in your car -- try car pooling, trains, busses, etc." Preventing significant deterioration (PSD) will affect the kinds and extent of industrial emissions allowed in a given air quality control region (AQCR).

The following chart may help you understand the areas the SIP revision will address:

STATIONARY SOURCES

EMISSION STRATEGIES

- Sulfur in fuel strategies
- Vapor recovery
- TSP strategies

OFFSET & PSD

HAZARDOUS POLLUTANTS

- Asbestos
- Mercury
- Lead

MOBILE SOURCES

EMISSION STRATEGIES

- Retrofit
- California standards
- I&M

SHORT TERM STRATEGIES:

REDUCING VMTs

- Vanpooling
- Carpooling
- Busses
- Incentives & disincentives

LONG TERM STRATEGIES:

REDUCING VMTs

- Transportation plan review
- Transportation alternatives
- Land use strategies
- Incentives & disincentives

HAZARDOUS POLLUTANTS



citizens' bulletin index

October 1973 ~ July/August 1978

Covering all major articles in Volumes 1 through 5

AESTHETICS					
Intangible but essential	Nov 74 p 33-35	Wanted, dead or alive: returning Atlantic Salmon	Je/J1 74 p 12	Emergency one-nite sites available	Je 78 p 10
AGRICULTURE		AUTOMOBILE EXHAUST GAS see MOTOR VEHICLES - POLLUTION CONTROL DEVICES		Living in the snow for the weekend	Jan 77 p 5
Agricultural lands	Oct 74 p 7-12	AUTOMOBILES		CARPPOOLS	
Agricultural task force	Nov 74 p 5	Fuel consumption	Feb 74 p 2	State carpool program	Oct 75 p 12
Preservation of agricultural land bills	Mar 78 p 10	The 1976 Mount Washington Alternative Vehicle Regatta	Sept 76 p 7-8	Transportation Control Plan: ready for public hearing	Jan 76 p 1-5
AIR POLLUTION		AUTUMN		CHRISTMAS TREES	
Air	Oct 73 p 6	Your October environment	Oct 76 p 9-10	Your December environment	Dec 76 p 13-14
Air quality overview	Apr 74 p 7-9	AWARDS		CITIZEN/GOVERNMENT TRANSPOR- TATION PLANNING CENTER	
Backyard air pollution -open burning	Nov 73 p 3	Conservation awards presented	Oct 75 p 5	There must be a better way	My 78 p 11
Citizen monitoring	Feb 74 p 3-4	DEP employee wins award	Jan 78 p 11	CITIZEN PARTICIPATION	
DEP man to lead national group	My 74 p 15	DEP employee wins suggestion award	Mar 78 p 7	COORDINATOR	
EPA crop damage study	Mar 77 p 12	EPA presents 1976 awards	Mar 77 p 12	DEP Citizen Participation	Feb 78 p 10
The energy crisis arrives	Dec 73 p 1-3	Fly fishermen present awards	Feb 76 p 12	Coordinator named	
Environmental quality update	Nov 76 p 5	Henry Beal receives environ- mental award	Dec 75 p 16	What is a DEP Citizen Participation Coordinator?	My 78 p 10
Getting out in the ambient air	J1/Aug 78 p 2-6	1976 environmental awards program	Je 76 p 11	CITIZEN PARTICIPATION IN ENVIRONMENTAL PROTECTION	
Indirect source program to be modified	Je 77 p 12	State activists honored	Feb 75 p 8	see ENVIRONMENTAL PROTEC- TION - CITIZEN PARTICIPA- TION	
Indirect source regs modified	J1/Aug 77 p 1	BASS FISHING		CITIZENS' ADVISORY COUNCIL	
Indirect sources	Mar 75 p 12-15	Connecticut's trophy bass	My 76 p 11	Citizens' Advisory Council celebrates first birthday	Nov 76 p 14
Indirect sources of air pollution regulated soon	Je/J1 74 p 10	BICYCLES AND TRICYCLES		CITIZENS' BULLETIN	
Indoor air pollution	Aug 74 p 5-6	The Bicentennial East Coast Trail	Je 76 p 5-6	Publication resumed: a letter from Commissioner Gill	Oct 73 p 1
New open burning regs issued	Dec 75 p 5	BIRD FEEDERS			Sept 75 p 1
Our worst stationary source	Sept 76 p 2-4	Bird feeders beware	Mar 75 p 3	CLUB-MOSSES	
Pac supports CBIA lawsuit	Apr 78 p 3	Bird feeding	Jan 76 p 12	Tree club-moss	Feb 78 p 16
Transportation Control Plan: ready for public hearing	Jan 76 p 1-5	Helping birds through winter	Nov 76 p 11-12	COAL	
Transportation controls	Feb 74 p 2-3	BIRDS, PROTECTION OF		Coal conversion	Sept 74 p 17-19
See also OZONE		Bird hunting EIS	Mar 75 p 3-4	Coal for Connecticut?	Je 77 p 1-2
AIR QUALITY		BLUEBERRIES		COASTAL MANAGEMENT	
Federal air and water laws	Jan 75 p 3	High bush blueberry	Je 77 p 8	CAM Board releases draft legislation	Jan 78 p 10
Governor dedicates DEP van	Nov 74 p 26-29	BOATS AND BOATING		Coastal Area Management	Oct 75 p 4
1976 air quality	My 76 p 6	Boating accidents	J1/Aug 76 p 6-7	The Coastal Area Management Program: its second year	Sept 75 p 8-9
ANIMAL TRACKS		Boating on Long Island Sound	Sept 77 p 12	Coastal Management funded	Je/J1 74 p 6-7
Whose footprint is that?	Mar 76 p 11	Chart a course for safety	Je 76 p 8-9	Coastal Zone Management Program	Oct 74 p 18-20
AQUIFERS		Water quality standards	Nov 76 p 8	Frequently asked questions	Feb 78 p 8
ARBOR DAY		BOTTLE BILL		Management program takes shape	My 77 p 3-5
Arbor day set for April 29th	Apr 77 p 13	Legislative update	Apr 78 p 7	Summer workshops	Sept 77 p 13
ASPEN		1978 legislative proposals	Mar 78 p 10	What should we do?	J1/Aug 76 p 4-6
Big-tooth aspen	Nov 77 p 16	Pac forwards bottle legisla- tion	Mar 77 p 16	COASTS	
ATLANTIC SALMON		Pac submits Bottle Bill	Feb 78 p 2	CAM News	J1/Aug 76- entire issue
Connecticut River salmon wrap-up	Sept 77 p 14	BUDGET		Coastal recreation	J1/Aug 78 p 19
First salmon brings prize	Sept 74 p 22	DEP copes with budget constraints	Jan 76 p 8-9	COLUMBIA LAKE	
Fish with an excess of character	Dec 75 p 6-7	BUFFER BUNCHES		Lake eutrophication special study	Feb 78 p 12
Fishway officially opens	My 76 p 7	The buffer bunch	Mar 74 p 4-5	COMMON ST. JOHNSWORT	
Rainbow Dam fishway completed	Oct 75 p 1-2	The buffer bunch	Feb 75 p 7	Trailside Botanizing	Je 76 p 12
Restoring the salmon to Connecticut	Apr 76 p 5+	Buffer bunch available	Dec 76 p 7+	COMMUNITY FORESTS	
Reward offered for return of adult salmon	Apr 75 p 3	Buffer bunches attract wildlife	Mar 76 p 10	ABC's of starting a community forest	Dec 76 p 10-12
Salmon caught by angler	Je 77 p 16	Buffer bunches available	Jan 76 p 13	COMPOST	
Salmon: coming home to Connecticut River	J1/Aug p 10-13	BURLINGTON HATCHERY		Have you started a compost pit?	Apr 77 p 15
Salmon restoration program update	Apr 78 p 2	At our state hatcheries	Apr 77 p 3		
Salmon restoration project moves forward	Feb 78 p 4	CACIWC			
		Association expands	J1/Aug 78 p 7		
		CAMPING			
		Camping season to open soon	Mar 75 p 2		
			Mar 77 p 11		

COMPUTER BASED RESOURCE UNITS (CBRU's) CBRU's are coming	Feb 77 p 16	New federal dredge and fill guidelines A use for dredge spoil	Jan 76 p 14 Oct 75 p 7	FISHES Research at UConn	J1/Aug 77 p 8
CONNECTICUT AIR CONSERVA- TION COMMITTEE Wanted clean air	My 78 p 12	DUCK STAMP The federal duck stamp: not just for hunters	Nov 75 p 7	FISHING	Mar 74 p 5 Apr 74 p 10 Mar 78 p 7 Apr 75 p 2-3
CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION	Mar 75 p 5	EARTH WEEK	Apr 76 p 6	Fishing season opens April 15 1975 fishing season opens 'No kill' fishing area established Winter fishing	Mar 76 p 4 Jan 76 p 12
CONNECTICUT COUNCIL ON WATER COMPANY LANDS Council issues Water Co. Lands report	Mar 77 p 4,5	ECONOMIC FORECASTING - MATHEMATICAL MODELS Evaluating fiscal impacts	Mar 78 p 4	FLOOD CONTROL	Oct 74 p 23-27 Oct 74 p 27-28 Feb 77 p 3-9
CONNECTICUT FOREST AND PARK ASSOCIATION CFPA helps state acquire parks and forests	Je 78 p 9	ENERGY CONSERVATION Connecticut's energy outlook, 1977 - 1996 The crisis isn't over - just dormant	Mar 77 p 14 Dec 74 p 5-6 Jan 74 p 4 Dec 73 p 1-7 Sept 74 p 7-10	Flood control projects Flood management in Connecticut	Oct 76 p 11 Mar 75 p 9
CONNECTICUT RIVER GATEWAY CONSERVATION ZONE Innovation in land use An innovation in land use control	Nov 74 p 32-33 Je/J1 74 p 4-6	Energy The energy crisis arrives Energy overview It's working - where they try harder Old man winter's slap: thanks we needed that P.E.P. Talk Public view of environment/ energy	Feb 74 p 5 My 77 p 8 My 76 p 14 Feb 74 p 1-2	FLOODS National flood insurance	
CONNECTICUT 208 PROGRAM 208 planning - what is it?	My 77 p 6-7	ENVIRONMENTAL EDUCATION CENTER New environmental education service center opens	Oct 76 p 12	FOREST FIRES - PREVENTION AND CONTROL Connecticut forest fire control: 1600 - 1910 Connecticut forest fire control: 1910 - 1942	Dec 75 p 13-14 Apr 76 p 14-16
CONSERVATION AND DEVELOP- MENT POLICIES PLAN Plan of C & D revised	Apr 78 p 4-6	ENVIRONMENTAL IMPACT STATEMENTS Building blocks for land use planning	Oct 74 p 32-34	FOREST NURSERIES As the squirrels go	Dec 74 p 7-8
CONSERVATION AND PRESERVA- TION DIVISION C & P deputy commissioner reappointed	Mar 75 p 1-2	ENVIRONMENTAL INTERN PROGRAM see MASSACHUSETTS AUDUBON SOCIETY		FORESTS AND FORESTRY	Dec 76 entire issue Oct 74 p 14-16
CONSERVATION COMMISSIONS	My 74 p 9-10	ENVIRONMENTAL PROTECTION - CITIZEN PARTICIPATION CAM wants your opinion Citizen participation Citizen participation for the eighties Citizen participation urged It's your environment	Dec 77 p 11 My 74 p 1-3 My 78 p 13-15 Feb 76 p 9+ My 78 p 2-5	Forests-our under- developed lands The Goodwin gift-from farm to state forest New state forester REAP, FIP	Dec 76 p 9 Sept 74 p 20 Apr 74 p 15
Conservation Commission Corner	Sept 75 p 19			FRINGED POLYGALA Trailside Botanizing	My 76 p 13
Conservation Commission Corner	Nov 75 p 12			GALLS Your February environment	Feb 77 p 11
Conservation Commission Corner	Jan 76 p 15			GAS MILEAGE see AUTOMOBILES - FUEL CONSUMPTION	
Conservation commissions: the time is now Environmental variance: joint hearings can work	Aug 74 p 17-22 My 77 p 12			GASOLINE Leaded gasoline and emission controls	Aug 74 p 3-5
CONSERVATION OFFICERS Conservation officer of the year DEP conservation officers	Feb 76 p 5 Feb 75 p 6-7	ENVIRONMENTAL QUALITY DIVISION Environmental quality update	Sept 75 p 4-6	GYPSY MOTH Declining pest Gypsy moth decline	Apr 74 p 6 Aug 74 p 11-12
COUNCIL ON ENVIRONMENTAL QUALITY CEQ appoints executive director CEQ appoints new director Citizen participation - CEQ Have a complaint?	Mar 78 p 13 Feb 77 p 12 My 74 p 7-8 My 78 p 5	ENVIRONMENTAL REVIEW TEAMS Environmental review teams revived	My 74 p 6 Sept 77 p 9	GLASTONBURY Land use planning in Glastonbury	My 74 p 8-9
COVENTRY LAKE Lake eutrophication special study	Feb 78 p 12	EROSION Erosion and sedimentation- is it a problem? Overlooked pollution	J1/Aug 77 p 10 Oct 74 p 30-32	GOODWIN FOREST CONSERVATION CENTER The outdoor classroom	Dec 76 p 8
CROSS-COUNTRY SKIING Cross-country skiing in Connecticut	Jan 77 p 3-4	EUTROPHICATION Lake eutrophication special study Lake eutrophication special study	Jan 78 p 12 Feb 78 p 12	GRANTS-IN-AID Innovative DEP programs are awarded EPA grant	Je/J1 74 p 1-3
DEER Deer season results From the field How a deer check station operates Hunters: deer applications now available The 1975 deer season 1977 deer season summary	Mar 76 p 3+ My 76 p 12-13 Dec 75 p 8-9 Sept 76 p 8 Oct 75 p 14-15 Feb 78 p 15	FAIRFIELD Restoring Fairfield's marsh	J1/Aug 76 p 12-14	GUILFORD CONSERVATION COMMISSION Conservation Commission Corner	My 76 p 16
DEP Annual report to the citizens - part I Annual report to the citizens - part II The changing of the guard Commissioner Gill resigns Court affirms DEP powers DEP at work Pac named new commissioner Three years old	Oct 77 p 3-12 Nov 77 p 5-10 Feb 75 p 1-5 Dec 76 p 1 Feb 76 p 4 Je/J1 74 p 11 Jan 77 p 1 Jan 75 p 1-2	FALSE HELLEBORE Trailside Botanizing	Apr 77 p 6	HANDICAPPED State parks can be enjoyed by handicapped	Je 78 p 11
DETERGENTS, SYNTHETIC Detergents - the department recommends	Mar 74 p 1-3	FARMINGTON CANAL The Farmington Canal: a unique restoration opportunity	Je 76 p 7+	HARTFORD ENVIRONMENTAL SERVICES CENTER You are not alone	My 78 p 12+
DREDGING The dredging dilemma	Nov 75 p 1-4	FERNS Christmas fern Sweet fern	Dec 77 p 16 Sept 77 p 16	HAWKS Hunters, know your silhouettes	Oct 76 p 5-8
		FILLS (EARTHWORK) Civil penalties regulations	Nov 76 p 8	HAZARDOUS SUBSTANCES Annual spill report	Sept 77 p 10
		FILMS CAM news Having a meeting?	J1/Aug 77 p 9 Dec 77 p 11	HEATING P.E.P. talk	Nov 76 p 10
		FIREPLACES Fireplaces: how valuable are they?	Jan 77 p 10	HICKORY Shagbark hickory	Feb 77 p 9
		FISH TRADE	J1/Aug 76 p 8-9	HISTORIC SITES Preservation of our social heritage	Nov 74 p 9-10
		FISHERY LAW AND LEGISLATION Commercial fishing	Dec 74 p 9-11		

HOUSATONIC RIVER DEP moves on PCB's	Sept 77 p 1+	How a bill becomes a law Legislative summary Legislative summary Legislative update Legislative wrap-up Legislature acts on CAM	My 78 p 8-9 Sept 75 p 11-18 Mar 76 p 14-15 Apr 78 p 7-8 J1/Aug 78 p 8-9 J1/Aug 78 p 18	NIPMUCK TRAIL Nipmuck Trail opens	Apr 76 p 8
HOUSING Multiplying with the population	Nov 74 p 22-24	1974 environmental legisla- tion 1974 environmentally-related legislation 1975 proposed legislation 1977 legislative summary 1977 legislative wrap-up Proposed bills of environ- mental concern Proposed bills of environ- mental concern Public hearings - noise, animals	Nov 73 p 1 Je/J1 74 p 18-28 Mar 75 p 18-23 My 77 p 14-15 J1/Aug 77 p 5-6 Mar 74 p 7-16 Apr 74 p 11-14 Feb 74 p 7	NOISE POLLUTION Final noise regulations approved Hearing on revised noise regulations Noise regulations	Dec 74 p 1-4 Feb 78 p 10 Nov 77 p 13 Nov 76 p 9+
HUNTING Hunter safety and conserva- tion education: a neces- sity Hunting forecast favorable Prospects for hunting season good	Dec 74 p 11 Sept 77 p 4 Oct 77 p 1+ Oct 76 p 2-4			OAK 'Charter Oak' seedlings offered	My 76 p 5+
ICE FISHING For winter sport, try ice fishing	Jan 78 p 8			OFFSHORE DRILLING (PETRO- LEUM) see OIL WELL DRILLING, SUBMARINE	
INCINERATORS Ash residue study Our worst stationary source	My 76 p 15 Sept 76 p 2-4	LEGISLATIVE BODIES The General Assembly The General Assembly	Feb 74 p 6-7 Jan 75 p 2-3	OIL REFINERIES see PETROLEUM REFINERIES	
INDIAN PIPE Trailside Botanizing	J1/Aug 78 p 20	LIFEGUARDS Lifeguards wanted!	Mar 77 p 6	OIL SPILLS Connecticut's Clean Water Program: the halfway point Farmington River Watershed oil spill plan	Sept 74 p 15-17 Oct 75 p 11 Mar 75 p 6
INDIANS From the field	Dec 75 p 11-12	LILIES Trout lily	J1/Aug 77 p 16	OIL WELL DRILLING Oil-drilling, docking and refinery sites	Nov 74 p 19-21
INLAND WETLANDS see WETLANDS		LITTER BILL 1978 legislative proposals	Mar 78 p 10	OIL-WELL DRILLING, SUBMARINE Coastal Area Management Offshore oil exploration- What does it mean? P.E.P. Talk Public hearings	Jan 76 p 11 Jan 77 p 6-7 J1/Aug 76 p 11 Oct 73 p 2
INSECTS Your September environment	Sept 77 p 7-8	LOBBYING Lobbying is not a four letter word	My 78 p 6	OLD SAYBROOK	J1/Aug 76 p 7-8
INSPECTION AND MAINTENANCE BILL 1978 legislative proposals Pac presses for I & M Bill	Mar 78 p 9 Mar 78 p 12	LONG ISLAND SOUND CAM and the Long Island Sound study Coastal resource atlas available The dredging dilemma Long Island Sound study Long Island Sound study Our coastal resource: facts about the Sound	Feb 77 p 10+ Nov 77 p 11 Nov 75 p 1-4 Oct 74 p 21 Nov 74 p 6 J1/Aug 76 p 3+	OPEN SPACES Conservation easements Open spaces-acquisitions- appraisals-grants-in-aid Preserving open space Survey of local open space regulations	Je 77 p 3+ Mar 77 p 13 Nov 74 p 10-11 Dec 77 p 7
IRON INDUSTRY AND TRADE Connecticut's iron hills heritage	Feb 76 p 6	MAMMALS Your January environment	Jan 77 p 11-12	OSPREYS Protecting the osprey Wildlife notes	Je 78 p 4 Sept 75 p 10
JOE-PYE-WEED Spotted Joe-pye-weed	Sept 76 p 9	MAPLE SYRUP Your March environment	Mar 77 p 9-10	OWLS	Feb 78 p 5-7
KENSINGTON HATCHERY At our state hatcheries	Apr 77 p 4	MARSHES, TIDE Restoring Fairfield's marsh Your May environment	J1/Aug 76 p 12-14 My 77 p 9-10	OYSTERS Aboard the Ellen J.	J1/Aug 76 p 10+
KING'S MARK In the past month - King's Mark	My 74 p 4-6 Jan 74 p 5	MASSACHUSETTS AUDUBON SOCIETY CAM interns conduct research Environmental Intern Program	Nov 77 p 11-12 Sept 74 p 24-25	OZONE Ozone: eating your spinach Ozone season: the summer smog	J1/Aug 78 p 3 Je 76 p 2-4+
LAKE WARAMAUG Lake eutrophication special study	Jan 78 p 12	MOCCASIN-FLOWER Trailside Botanizing	My 78 p 16	PCB's DEP moves on PCB's DEP tests for PCB's PCB testing to continue	Sept 77 p 1+ Feb 76 p 1-3 Mar 77 p 7+
LAND Land acquisition notes Municipal land acquisition State-owned land Water company lands	Jan 76 p 16 Dec 75 p 12 Nov 74 p 7-8 Oct 74 p 12-14	MOTOR VEHICLES-POLLUTION CONTROL DEVICES Transportation Control Plan	Jan 76 p 1-5	PAC, STANLEY J. Pac named new commissioner	Jan 77 p 1
LAND TRUSTS Creating effective land trusts	Nov 74 p 11-12 Sept 76 p 5-6+	MYCELUM Recycling - everyone wins	Dec 74 p 13-14	PAPER RECYCLING DEP initiates paper recycling program	Feb 78 p 11
LAND USE Development siting Energy efficient development patterns Industrial site general study Land use data workshops Land use planning Land use/water quality relationships On the national scene Plan of conservation and development State land planning - a history Workshop on local land use held	Jan 74 p 3+ Oct 74 entire issue Nov 74 entire issue Nov 74 p 35-37 Nov 74 p 21-22 Sept 77 p 11 Mar 75 p 10 Nov 74 p 42 Oct 77 p 2 Je/J1 74 p 12-13 Oct 74 p 2-7 Nov 74 p 2-5 J1/Aug 77 p 6	MYSTIC RIVER Court upholds commissioner	Dec 76 p 6	PARKS PARKS, MANAGEMENT Albert M. Turner-the "tem- porary" employee who stayed for 28 years From the field	Je 78 entire issue Je 78 p 7-8 Oct 75 p 6-7
LANDFILLS see FILLS (EARTHWORK)		NATIONAL HUNTING & FISHING DAY September 27, 1975 September 24th	Sept 75 p 2 Sept 77 p 5	PEREGRINE FALCON Peregrine falcons to be reintroduced "Wildlife Needs You" is theme for 1978 Wildlife Week	Apr 75 p 7 Mar 78 p 3
LANDFILLS, SANITARY see SANITARY LANDFILLS		NATURAL AREAS Preservation of our natural heritage	Nov 74 p 9	PESTICIDES Pesticide use and regula- tion Proposed regulations: pesticides	Jan 74 p 4-5 Je/J1 74 p 7-9 Sept 74 p 6
LEGISLATION Bill to change conveyance tax on sale of farm, forest, open space land	Mar 78 p 11	NAUGATUCK RIVER From the field Naugatuck River signifi- cantly cleaner	Nov 75 p 13-14 Apr 76 p 2	PETROLEUM REFINERIES DEP on oil refinery Oil refinery task force	Dec 74 p 11-12 My 74 p 13

Oil refinery task force report	Mar 75 p 7-9	SALMON see ATLANTIC SALMON	TEACHING AIDS AND DEVICES Learn about land use	Nov 75 p 15
What about refineries in Connecticut?	Sept 76 p 10	SALT-MARSHES see MARSHES, TIDE	TECHNICAL ASSISTANCE Technical assistance from the Department of Environmental Protection	Dec 73 p 11
PETROLEUM WASTE The old oil dilemma: what do you do with it when you're through?	Apr 76 p 12-13	SAND AND GRAVEL INDUSTRY Planning for sand and gravel mining	TIDAL WETLANDS see WETLANDS	
PHOSPHATES Phosphorous	Mar 74 p 1-3	SANITARY LANDFILLS From the field	TRANSPORTATION Considering transportation alternatives	Je 77 p 11
PINE Pitch pine White pine	Jan 78 p 16 Dec 76 p 16	Milford landfill	Inadvertent land use policy	Nov 74 p 12-16 Aug 74 p 12-14
PIPSISSEWA Trailside Botanizing	Feb 76 p 8	SCAUP From the field	Route 7 Transportation control plan: ready for public hearing	Jan 76 p 1-5 Mar 74 p 4
POLICE POWER Taking v. police power	Nov 74 p 38-40	SEACOAST CELEBRATION Connecticut's coastal awareness day	Transportation controls in Hartford	Apr 74 p 7
POND ECOLOGY Your June environment	Je 77 p 9-10	SEASHORE ECOLOGY Your July/August environment	Transportation plan goes to EPA	Sept 76 p 4
POWER-PLANTS Energy siting P.E.P. Talk Research at UConn on nuclear power plant siting	Nov 74 p 17-18 Je 76 p 13 Jan 77 p 8-9	SEE PROGRAM DEP receives \$100,000 grant	TREES Your December environment	Dec 77 p 13-14
PRAYING MANTIS European praying mantis, state insect	Jan 78 p 15	SEWAGE DISPOSAL Connecticut's Clean Water Program: the halfway point	TRILLIUM Red trillium	Apr 76 p 9
PROJECT: LISTEN	My 78 p 11	Proposed regulations: septic code Septic regulations	TROUT Ball Pond stocked DEP's trout stocking program	Dec 74 p 9 Apr 76 p 3-4
QUINEBAUG HATCHERY At our state hatcheries Fishing at Quinebaug Fishing in the hatchery Fishing ponds to open	Apr 77 p 4 Apr 77 p 8 Mar 75 p 4 Feb 78 p 9	Research on improved sewage treatment	How to raise a million trout Know your trout Stocking state waters	Apr 77 p 5 Apr 77 p 9-10 Apr 77 p 7+
RADIATION From the field	Jan 76 p 9-10	SEWER AVOIDANCE BILL Legislative update	VANDALISM Vandalism plagues state parks	Apr 76 p 7-8
RAILROADS	My 74 p 14-15	SHAD Connecticut's American shad	WATER QUALITY Clean water for Connecticut - federal law adds to successful state program	Apr 74 p 1-5
RAINBOW DAM FISHWAY Fishway officially opens Fishway to be constructed Rainbow Dam Fishway completed Reader's forum	My 76 p 7 Dec 74 p 8-9 Oct 75 p 1-2 Nov 75 p 6	Rainbow Dam Fishway completed Up the Farmington-via Rainbow Fishery	DEP obligates \$163.88 million for clean water	Nov 77 p 1-2 Nov 74 p 29-31 J1/Aug 78 p 14-16
RARE SPECIES Rare and endangered species: prospects for survival	Nov 76 p 3-4+	SHADBUSH Trailside Botanizing	Federal air and water laws Lakes saving Land use/water quality relationships	Oct 77 p 2 Feb 74 p 5-6 Mar 75 p 10-11 Nov 73 p 1-2
RECREATION Recreational use of existing corridors Shrinking resources for expanding population	Nov 74 p 18-19 Nov 74 p 6-7	SHEPAUG RIVER Shepaug qualifies as scenic river	Water funds frozen Water quality data Water quality hearings	
RECYCLING (WASTE, ETC.) The Region I Recycling Center Resources recovery	My 76 p 1-5 Sept 74 p 10-15	SHINING CLUBMOSS Trailside Botanizing	WATER QUALITY MANAGEMENT Public participation	Nov 77 p 3 Mar 78 p 2
REFUSE AND REFUSE DISPOSAL Dump is a dirty word Proposed regulations: solid waste management Reader's forum Solid waste management The solid waste story: moving toward a solution	Nov 74 p 31-32 Sept 74 p 4-5 Jan 76 p 6 Aug 74 p 14-16 Dec 75 p 1-4+	SHOT (PELLETS) Phaseout of lead shot	WATER RESOURCES DEVELOPMENT University of Connecticut-Institute of Water Resources	Sept 75 p 7
RESOURCE, CONSERVATION AND DEVELOPMENT PROJECT The eastern Connecticut R C & D	My 74 p 6-7	SKUNK CABBAGE Trailside Botanizing	WATER-SUPPLY Water resources conditions in Connecticut	Mar 78 p 5-6
RHAM HIGH SCHOOL Helping DEP...and Connecticut	Jan 77 p 13-14	SLEEPING GIANT STATE PARK Sleeping Giant trail dedication	WATER TREATMENT PLANTS Grants to municipalities for water treatment construction projects	Nov 77 p 2
RIVERS Connecticut's Clean Water Program: the halfway point	Oct 75 p 8-9	SOIL AND WATER CONSERVATION DISTRICTS	WATER, UNDERGROUND Groundwater 208 groundwater study	Je 77 p 7-8 Apr 78 p 13-14
ROCKY NECK STATE PARK Major beach expansion planned for Rocky Neck State Park	Nov 76 p 13	SOIL CONSERVATION SERVICE New SCS state conservationist SCS can help you prevent soil erosion The Soil Conservation Service completes 4 decades of work	WATERFOWL Midwinter inventory of waterfowl Waterfowl hunting season Waterfowl season summary Waterfowl seasons set	Mar 76 p 3 Sept 74 p 21 Sept 77 p 3 Sept 76 p 16
RUNOFF Individual special studies: urban runoff	Dec 77 p 2	SOILS A state soil for Connecticut?	WEST ROCK RIDGE, NEW HAVEN West Rock Ridge deed	Dec 74 p 14
		SOLAR ENERGY Conference on legal aspects of solar energy Solar energy: a bright prospect	WETLANDS The Brecciaroli case Inland wetlands Inland wetlands Inland wetlands National Wildlife Week Protecting the wetlands Spring is early in freshwater wetlands	Apr 75 p 1-2 My 74 p 10-12 Oct 74 p 21-23 Apr 75 p 4-5 Mar 76 p 2 Aug 74 p 7-11 Apr 78 p 9-10
		SOLID WASTE MANAGEMENT see REFUSE AND REFUSE DISPOSAL		
		STREAM MEASUREMENTS Stream flow in Connecticut		
		STREAMBELTS Surveying streambelt corridors		



**LOOKING
FOR A
GIFT IDEA
CONSIDERABLY
MORE MODEST
THAN MINK?**

***GIVE DEP'S
CITIZENS'
BULLETIN!***

Give a little involvement . . . give a little adventure. Get a friend involved in cleaning up Connecticut's air, restoring our waters to purity, preserving our open spaces, managing our coastal resources. Get a friend out to enjoy Connecticut's parks and forests -- camping, hiking, boating, skiing, hunting and fishing, environmental programs. Share some interesting information on wildlife and conservation, on Connecticut's plants and animals and ecoregions. Give the Citizens' Bulletin. Eleven issues annually are just \$2.

DEP CITIZENS' BULLETIN SUBSCRIPTION FORM

NAME AND/OR ORGANIZATION

ADDRESS

. ZIP CODE

AMOUNT ENCLOSED

Cost: \$2 annually (11 issues). Please make checks or money orders payable to the Connecticut Department of Environmental Protection. Please don't send cash through the mail. Be sure to include your ZIP CODE above. Return this form to:

Editor, Citizens' Bulletin, Rm. 112, State Office Building, Hartford, CT 06115

Trailside Botanizing

by G. Winston Carter

Birch Conk

Polyporous betulinus

The birch conk, or birch tree polypore, is a very common type of bracket or shelf fungus that invades birch trees. A familiar sight is a whole series of these conks lined up one above the other on the bark of the tree. Conks are part of nature's recycling equipment and appear in wooded areas in different colors and shapes. They may live on woody plants that are alive or dead.

This relationship is necessary because these plants are fungi and are unable to manufacture their own food, so they must live as parasites (growing on live woody plants) or saprophytes (living on dead woody tissue). The birch conk usually invades white or gray birch and causes a rot in the sapwood.

The visible shelf is the spore-producing part of the fungus plant. These spores are released from many crowded openings on the underpart of the shelf and the white spores are shed downward. The shelf extends outward from the branch or trunk of a birch from 4 to 8 inches and is usually somewhat

kidney-shaped. Inside the tree the shelf is connected to many small, thread-like strands which branch out into the wood. At the tip of each of these strands enzymes are produced which break down the wood and help to nourish the fungus.



Although most conks are destructive to forest trees, a few of the softer species such as the bright colored sulfur polypore are edible when young. Most species are too tough to be edible, however. This is true of the birch conk, which, when it is dried, has sometimes been used for stropping the old time straight razor.

DEP citizens' bulletin

State of Connecticut
Department of Environmental Protection
State Office Building
Hartford, Connecticut 06115

Commissioner: Stanley J. Pac
Director Info & Ed: Greg Sharp
Editor: Margot Callahan
Layout: Rosemary Gutbrod
Typist: Linda Mrowka
Phone: 566-5524

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical handicap, national origin, ancestry, marital status or political beliefs."

SECOND CLASS POSTAGE PAID
AT HARTFORD, CONNECTICUT